

A NEW SPECIES OF BLUE COHOSH (CAULOPHYLLUM,
BERBERIDACEAE) IN EASTERN NORTH AMERICA

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Our revision of the genus Caulophyllum Michaux has resulted in the recognition of three species. In preparation for a later publication, the following taxonomic and nomenclatural change is proposed.

Caulophyllum giganteum (Farw.) Loconte & Blackwell,
comb. & status nov.

Basionym: Caulophyllum thalictroides (L.) Michx.
var. giganteum Farw.

Original description: Farwell, O. A. 1918. Notes on
the Michigan Flora. Michigan Academy of Sciences
Report 20: 178.

Holotype: U.S.A., Michigan, Oakland Co., Farmington
Twp., Stevens, 1917, Farwell 4450 (BLH 38877!).

Caulophyllum giganteum is sympatric with C. thalictroides (sensu stricto) in mesophytic forests of eastern North America. Caulophyllum giganteum occurs in Ohio, Kentucky, Tennessee (Sullivan Co.), North Carolina (Alleghany Co.), Virginia, West Virginia, Pennsylvania, New York, Massachusetts, Vermont, New Hampshire (Grafton Co.), and Michigan (southeast), as well as Canada (Ontario and Quebec) where it is most common.

The two species have separate yet overlapping floral phenologies which allow effective temporal reproductive isolation. At a given site, Caulophyllum giganteum will begin to flower two weeks before C. thalictroides; the latter will continue flowering two weeks after C. giganteum. Caulophyllum giganteum has larger flowers correlated with fewer flowers per inflorescence. It has larger carpels, styles, filaments, petals and sepals than C. thalictroides. The leaves and leaflets are also larger than those of C. thalictroides. However, C. thalictroides is taller than C. giganteum. Pigmentation of the petaloid sepals is not as clear-cut as originally described by Farwell. The sepals of C. giganteum are typically purple whereas C. thalictroides may have sepals which are yellow, purple, bichromatic (yellow-purple) or green, all within a single population.

The third species of Caulophyllum, C. robustum Maximowicz, is geographically isolated in eastern Asia.